

Facilities Quarterly

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY FACILITIES DEPARTMENT NEWSLETTER

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NEW FACILITIES WEBSITES GO ONLINE

In an ongoing effort to provide better services and reduce paperwork, Facilities has recently started up two new websites, Facilities Planning and Property Reuse, that provide web users with a wealth of Facilities-related information.

The Facilities Planning website makes planning documents and resources available to DOE, Berkeley Lab planners, the Laboratory community, and the public. With a total file size of around 900 megabytes, it is the single largest site on the Laboratory web server. Features include a Keyplans database, Facilities Photo Catalog database, and online publications.

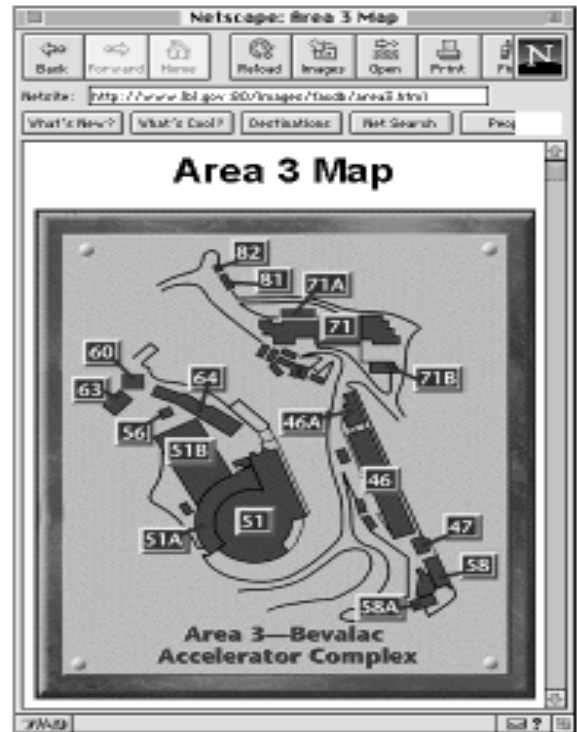
The Keyplans database contains up-to-date floor plans. These "keyplans" can be viewed onscreen or printed out at good resolution. Keyplans change every time an office moves or is remodeled; the Keyplans database allows them to be put up on the Web as soon as they are modified. While hard copies of Keyplans will still be distributed, the database should reduce the need for printed copies.

The Facilities Photo Catalog database contains hundreds of digital photos of Berkeley Lab's buildings and infrastructure. Clickable maps of the labsite allow retrieval of photos and key data for a given building. Alternatively, an input form can be used to search by multiple criteria such as building number, name, and functional category.

Online publications include the Facilities Planning Summary (FPS) and the Comprehensive Facilities Plan (CFP). A concise overview of planning issues and directions, the FPS includes a 5-year plan and maps showing present and future development. The FPS is available online or as a downloadable Adobe Acrobat PDF File.

The CFP is an atlas-like reference book of data on the current Laboratory site and plans for the future. Currently in draft, the CFP will be submitted to DOE every five years. Its 200 pages contain 63 tables and 57 figures, including 25 color maps of the Lab. A downloadable PDF version is also provided.

Other resources on the Planning website include information on the annual "Call" for new projects, 5-year and 20-year construction plans, downloadable



Clickable map for the Facilities Photo Catalog

Conceptual Design Reports, lists of GPP, GPE, and noncap projects for FY97, and much more.

The Facilities Planning website is linked to the Laboratory Support Services page under Facilities. It can be accessed directly at <http://www.lbl.gov/Workplace/Facilities/Planning>.

In cooperation with Property Services, Property Reuse (see *Facilities Quarterly*, July 1996) has inaugurated two online searchable databases, the Excess Property Database and Property Sales Database.

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PROJECT MANAGEMENT—THE BIG PICTURE

Every year Berkeley Lab carries out millions of dollars worth of construction. These construction projects include noncapital (noncap) projects that involve alterations of existing facilities, such as office remodels; general plant (GP) projects—which result in betterment of facilities—such as the Building 54 Conference Center; and line-item projects—funded by Congress as “line items” in the

Federal Budget—such as the Human Genome Laboratory (see page 5, “In Progress”).

To safeguard the Laboratory’s investment in new construction, the Facilities Department assigns every construction project to a project manager, or PM. Smaller noncap projects are usually handled by Bill Wu’s Small Projects Group, a multidisciplinary team that manages short-turnaround

projects. Larger projects are assigned to one of eight PMs in the Project Management Group, headed by Charlie Allen.

“The PM is responsible for cost, scope, schedule, and client communications, and has line responsibility for project safety, says Allen. “The value added by the PM is in the control of the critical elements of a project.”

Subcontracting is the preferred procurement method for GP and line item construction at the Lab. For GP and larger noncap projects, subcontractors are selected on the basis of competitive bids from a “stable” of prequalified candidates. For line item projects, Allen wants to move toward selection based on “best value,” which would include evaluation of price, technical, and safety factors.

Sheree Siemiatkoski, project manager of the Human Genome Laboratory Project, sees the PM as “the one who clears away roadblocks that stand in the project’s way. The PM has to be clear on the scope and direction of work—know the big picture. This includes planning the project both in your mind and on paper, setting priorities and managing team member responsibilities.” Day to day, this includes activities such as coordinating design clarifications so that the subcontractor can continue work, or calling a vendor about owner-furnished, subcontractor-installed equipment to ensure the delivery schedule meets construction needs. “The PM addresses schedule concerns and potential problems,” says Siemiatkoski. “The PM has to be realistic and decisive, anticipating problems and resolving them in a timely fashion.”

On a given day the PM may call the A/E about construction details for the next phase, take a phone call from the subcontractor on the cost or schedule impacts of changes, and attend a jobsite preconstruction meeting to discuss materials, safety, and product submittals for the next phase of work. These daily



FROM THE FACILITIES MANAGER...

Welcome back from the shutdown; I hope all of you enjoyed the holidays. Special thanks to those who worked on repairs to the building systems and kept necessary equipment operating through the shutdown. Few Lab employees really know how much work is done during these two weeks, and the benefits gained by the researchers by avoiding some shutdowns during the rest of the year

The implementation of Maximo in Stores met the November 4 target, except for the API and barcode readers. The Stores staff worked long hours to get Maximo in place and to correct the small glitches always found in a new system. They continue to fine tune the system to realize optimum savings. We owe them a “well done” for their efforts. The job of implementing the maintenance module is now starting and is expected to take about one year.

In this issue we are highlighting the project managers. I hope you will learn a little of the complexity of their job. Considering the number of details they handle and the hoops they must jump through, in past lives they must have been jugglers and acrobats. I am sure the project managers would be the first to tell you that they couldn’t be successful without the support they receive from project administrators and construction superintendents. We have also brought the Work Request Center back for an encore to let you know how it has grown. Included in this issue are instructions on how to access our web page and a description of what you will find there. The development of this page was funded by Energy Research to support our planning requirements; however, we’ve added key plans and other items to help the Lab staff.

This year we will not have the same level of funding we enjoyed last year. The impact of this is already evident in the sharp drop of work after October 1. Our challenge this year is to return to the tight management of scope, schedule and budget that has proven successful in prior years.

Thank you for the extraordinary effort this past year and have...

A Happy New Year!

Bob Camper

FACILITIES DEPARTMENT

Facilities provides Berkeley Lab with a full range of architectural and engineering, construction, and maintenance services for new facilities, and modification and support of existing facilities.

Architectural and engineering services include facility planning, programming, design, engineering, project management, and construction management. Maintenance and construction functions include custodial, gardening, and lighting services; operation, service, and repairs or replacements to equipment and utility systems; and construction of modifications, alterations, and additions to buildings, equipment, facilities,

and utilities. Additional services include bus and fleet management, mail distribution, and the logistics functions of stores distribution and property disposal.

Ongoing Facilities activities include renewal and upgrade of site utility systems and building equipment; preparation of environmental planning studies; in-house energy management; space planning; and assurance of Laboratory compliance with appropriate facilities-related regulations and with University and DOE policies and procedures.

The Work Request Center expedites facility-related work requests, answers questions, and provides support for facility-related needs.

FOCUS ON SERVICE: The Work Request Center

The Work Request Center took its first call just four years ago, in January 1993. Since then, the biggest change has been in the scope of requests that it routinely handles. In addition to its original mission of expediting Facilities-related work, Work Request Center has developed into the "one-stop shop" for work by any support organization at the Lab. If the need isn't one handled by Facilities, the Work Request Center immediately routes the request to the appropriate destination, whether it's a building manager, EH&S, Computer Services, Protective Services or anywhere else on the Hill.

The Work Request Center is the contact point not only for immediate maintenance needs, such as custodial services and furniture moving, but also for large

and small construction projects. Those contemplating significant projects can also request assistance in the preparation of feasibility and initial design studies. Facilities staff will work with the client to carry the project from inception to completion, helping to define the project scope, providing planning and estimating support, preparing design drawings, and carrying out construction and installation.

All inquiries to the Work Request Center obtain a unique tracking number and are entered into a database. Requesters receive confirmation of their request within one business day, including a tracking number and a brief statement of the action to be taken. If you subsequently have a

question about a request's status, contact the Work Request Center for an update.

For Facilities projects, most requests go directly to the craft that will be doing the work. Projects that require engineering design or estimates, or that don't have an account number, are routed to Facilities Estimating. If a project is needed to correct safety and code violations it is funded by Facilities. If a design or estimate is required, Estimating assigns the project to a planner, who contacts the customer within 24 hours. The planner gathers information and usually makes a visit to the site. In most cases the completed estimate is given to the customer within 5 days.

For more information contact the Work Request Center as described on this page, or contact supervisor Betsy Reyes at 7681.

COMPLIMENTS

- The ALS's Jim Krupnick writes to Technical Services Supervisor John Bowerman, "I wanted to let you know how happy we are with the work that the laborers (led by Michael Elizalde) did on the Bldg 10 parking area improvement job."
- Don B. Davis, Lawrence Livermore National Laboratory Computing Facility Manager, expresses his appreciation for the work done by Rich Doty and his team of movers during the NERSC move. "Rich was always willing to pitch in and get the job done."

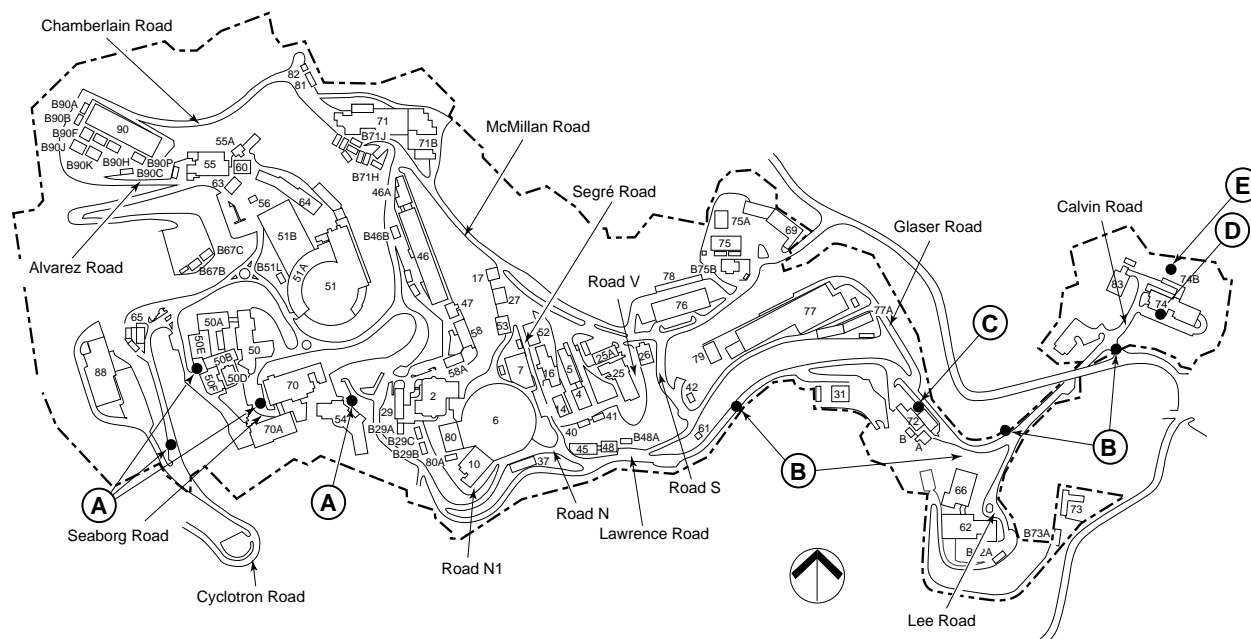
WORK REQUEST CENTER

Telephone	6274
Fax	6272
Quickmail	Facility
E- or VAX-Mail	lbl-Facilities@lbl.gov
Mailstop	76-222

WRC welcomes questions or comments about the Facilities Quarterly.

CONSTRUCTION AND YOU

Current construction projects affecting parking or vehicular or pedestrian circulation



Project Contacts. The name in parentheses after each project is the Project Manager (PM) or other person who is responsible for project oversight: coordinating all phases from design through construction; controlling cost, scope and schedule; and ensuring client satisfaction. This person will be happy to answer any questions about the project.

Sanitary Sewer Restoration

A	SANITARY SEWER RESTORATION		
	JAN	FEB	MAR

Construction of the sitewide Sanitary Sewer Restoration Project will begin in early January and last for approximately 9 months. The project includes replacement of sanitary sewer lines around the LBNL site. Much of the work will take place along main roadways and some disruption of traffic is anticipated. Parking will also be disrupted on a short-term, rotating basis as construction progresses around the Lab. The first areas to be affected include Cyclotron Road below Bldg 65, parking areas under 50E and 50F, Bldg 70/70A parking, and the Bldg 54 parking lot. (Steve Blair x5927)

East Canyon Electrical Safety

B	EAST CANYON ELECTRICAL SAFETY		
	JAN	FEB	MAR

The Bldg 66 parking lot will be used for cable storing and pulling operations. (John Pickrell, x6710)

Bldg 72C Laboratory and Office Addition

C	BLDG 72C LABORATORY AND OFFICE ADDITION		
	JAN	FEB	MAR

The new structure will be located at the north end of Bldg 72C in an existing parking area. Site work will require relocation of an existing office trailer. A few parking spaces will be reserved for the contractor during construction. (Greg Raymond, x4284)

Bldg 74 Animal Care Facility

D	BLDG 74 ANIMAL CARE FACILITY		
	JAN	FEB	MAR

Work continues on animal care and treatment room facilities on the 2nd floor of Bldg 74, including walls, doors, plumbing, electrical, flooring, etc. The subcontractor will use 3 spaces next to Bldg 74. (John Pickrell, x6710)

Bldg 84 Human Genome Laboratory

E	BLDG 84 HUMAN GENOME LABORATORY		
	JAN	FEB	MAR

Construction trailers and activities in this area will continue to impact local parking through mid-1997. Intermittent interruptions to vehicular access will also occur through this period. (Sheree Siemiatkoski, x6088)

ON THE DRAWING BOARD

projects in study or conceptual design

Blackberry Switching Station Replacement

The Blackberry Switching Station Replacement Project is the last major element in the master plan to rehabilitate the Lab's electrical power system and improve its reliability and safety. The project will upgrade the existing 12-kV power system and use circuit breakers provided in the FY87 improvements to Grizzly Substation. In addition to installing new 12-kV switchgear and cables, the project will eliminate the Big C switching station and switchgear at Bldg 51 and the Bldg 51 substation, and replace outdated 480 V load centers. (Richard Stanton, x6221)

Bldg 74 Rehabilitation of Building Systems

A conceptual design report is now in preparation for the rehabilitation of Building 74 mechanical and electrical systems, seismic upgrade of the structure, and code upgrade of architectural features. As part of the project, the Building 84 utility center would be expanded to accommodate Building 74 utilities, including relocated mechanical equipment and new electrical switchgear. If this project is funded, project design will begin in FY 1999. (Richard Stanton, x6221)

Bldg 77 Rehabilitation Project

Now in the conceptual design phase, this project will rehabilitate Building 77's structural system to restore lateral force resistance and arrest differential foundation settlement. In addition, the project will modernize the building's architectural, mechanical and electrical systems. (Pablo Orozco, x5820)

IN PROGRESS

funded projects

Building 72C Laboratory and Office Addition

Construction of an addition to Bldg 72C began in December 1995 and was scheduled for completion in December 1996. The addition provides three electron microscope laboratories on the first floor and ten supporting offices on the second floor, for a total area of 285 gross square meters (3,067 square feet). Direct access from the existing building is provided by corridor extensions on both levels. (Greg Raymond, x4284)

Sanitary Sewer Upgrade

This project will replace about 1,066 m of underground sanitary sewer lines. The system is over 50 years old, and degeneration has resulted from the past practice of discharging corrosive substances and from unstable geological conditions. Sewer breaks, offsets, obstructions, and undulations caused by ground movement and settling have resulted in excessive maintenance, sewer line cleaning problems, and possible soil contamination. (Pablo Orozco, x5820)

Bldg 84 Human Genome Laboratory

Exterior scaffolding has been erected and exterior sheathing, lath and plaster installation is in progress. Metal panels and windows will be delivered and installed over the next few months. Inside the facility,

mechanical and electrical rough-in work is progressing, and installation of partition walls has begun. Located adjacent to Building 74, the Human Genome Laboratory will provide 3800 square meters of space in three stories for state-of-the-art genetics research. (Sheree Siemiatkoski, x6088)

Chemical Dynamics Laboratory

The new Chemical Dynamics Laboratory is now under construction in Bldg 10. The former Photo Lab area has been gutted to make way for the new facility. The new lab will include HVAC, fume hoods, vacuum pumps, laser curtains and an interlock system. The researchers will provide laser tables, lasers, and other research equipment. (John Pickrell, x6710)

Molecular Design Institute

Design has been completed for Phase 4 of the Molecular Design Institute, to be constructed in Bldg 2, Room 359. The Molecular Design Institute has already occupied Bldg 2, Rooms 307, 321, 327, 331, 333, 335, 355, and 357, which were completed in the previous phases of the project. Construction will include relocation of utilities and electrical power supply, and installation of equipment racks and a laser curtain. (John Pickrell, x6710)

NEW FACILITIES WEBSITES *continued from page 1*

The Excess Property Database contains information on used equipment that has potential for reuse at the Lab. Based on the users brief description of a desired equipment item, the database returns a photograph of any matching item along with the date that it is available, manufacturer, model, condition, basic specifications such as size and capacity, and other information. Items on this list are turned over to the Berke-

ley Lab requester at no charge, provided the intended use is for official Lab business.

The Property Sales Database operates like the Excess Property Database, except that the property in this database is available to the general public for purchase. The data returned includes a bid lot sale number, lot number, and bidding closing date.

Another database, the Donation Database, is being developed and will include property that is available for donation to non-profit institutional users such as schools.

The Property Reuse pages are located on the Berkeley Lab Property Home Page, which is linked to the Support Services web page under Property Services. For direct access, go to <http://www/Workplace/Property-Services/>.

PROJECT MANAGEMENT

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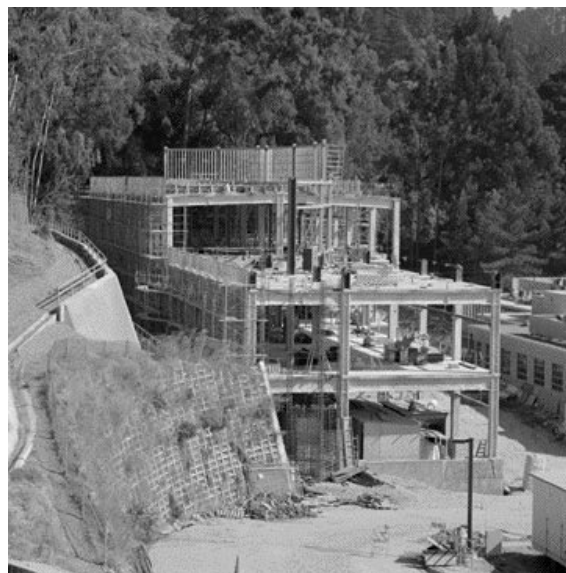
activities are driven by formal project management procedures that track, evaluate, and direct construction progress. A project schedule and cost tracking system enables the PM to understand the current project status and where the project is heading. Submittals, inspection reports and change orders provide a paper trail that spells out what will be constructed.

Submittals are document packages prepared by the subcontractor, containing shop drawings, vendor specifications, and installation details for an upcoming construction task. The project manager coordinates the review of these submittals with the project team and the architect/engineering firm (A/E), who evaluate it for conformance with project drawings and specifications. Once questions have been resolved, the submittal approved, and the construction task completed, the inspection process verifies whether the work performed is in accordance with submittals and contract documents. If work has been done improperly, it must be fixed.

Changes in scope or specifications are handled through change orders, whose main purpose is to prevent uncontrolled increases in scope of work known as "scope creep." The PM determines the need for a change and then works with team members to approve a budget and develop a changed scope of work. The PM then requests a proposal from a subcontractor to perform the work. The PM reconciles the subcontractor's quote and the Lab's cost estimate and, when necessary, negotiates the change with the subcontractor. The PM is responsible for ensuring that new work can be accommodated under the existing schedule and budget, or for obtaining the client's approval when a change is going to have cost and schedule impact.

The PM has many other responsibilities during the construction phase of a project, including prebid, bid and award prepara-

tions; approval of subcontractor progress payments; claims and arbitration; and project closeout—not to mention other project phases from conceptual design to facility activation. And PMs are usually responsible for multiple projects. With a central involvement in projects spanning from inception to occupancy, PMs play an essential part in making Berkeley Lab work.



Progress Photo of Human Genome Center

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